

News from Ed Markey

United States Congress

Massachusetts Seventh District

FOR IMMEDIATE RELEASE -- February 25, 1999

CONTACT: Colin Crowell

(202) 225-2836

Markey Letter to the NRC regarding Excessive Employee Overtime at Nuclear Plants

Shirley Ann Jackson
Chairman
Nuclear Regulatory Commission
Washington, DC 20555

Dear Ms. Jackson;

We are writing in concern that low staffing levels and excessive staff overtime may present a serious safety hazard at some commercial nuclear plants in the United States. The Nuclear Regulatory Commission (NRC) Information Notice 91-36 expressed the potential problem well:

The safety of nuclear power plant operations and the assurance of general public health and safety depend on personnel performing their jobs at adequate levels. Research on extended working hours indicates that the performance of individuals will degrade without adequate rest after long periods of work. Fatigue can degrade an operator's ability to rapidly process complex information such as that presented by off normal plant conditions. In addition, fatigue may jeopardize the ability to respond in a timely fashion. Furthermore, performance errors are more likely to occur as a result of lapses in short-term memory.

We have recently heard reports of routine use of staff overtime at nuclear plants that, although authorized, appears likely to exceed the "temporary basis" and "very unusual circumstances" standards for overtime (as described below). Such concerns at one plant recently were described in the article "Byron operators complain too much overtime could jeopardize safety" in the February 15, 1999 issue of Inside N.R.C. In addition, we are concerned that industry cost-cutting in response to the emerging competitive electricity market could be leading to staff reductions that will exacerbate overtime problems and degrade the ability to safely handle plant emergencies.

The need to control staff working hours has been recognized at least since the review of nuclear plant safety following the accident at Three Mile Island twenty years ago, with IE Circular No. 80-02 and the TMI Action Plan (NUREG-0737 Item I.A.1.3). The new policy was stated in 1982 in Generic Letter 82-12: "Enough plant operating personnel should be employed to maintain adequate shift coverage without routine heavy use of overtime. The objective is to have operating personnel work a normal 8-hour day, 40-hour week while the plant is operating." The letter did accept use of overtime for safety-related personnel "on a temporary basis" under specific guidelines, including, "An individual should not be permitted to work more than 16 hours in any 24-hour period, nor more than 24 hours in any 48-hour period, nor more than 72 hours in any seven day period." Deviation from these guidelines in "very unusual circumstances ... shall be authorized by the plant manager or his deputy, or higher levels of management" and "shall be documented and available for NRC review." However, Generic Letters are not enforceable, and Information Notice No. 91-36 noted several instances in 1989-91 of excessive use of staff overtime, staff fatigue, and inadequate authorization and documentation for overtime.

Information Notice 91-77 documents related problems with insufficient shift staffing during plant emergencies.

Although it is very difficult to determine if specific examples of operator error are caused by fatigue, we believe that staffing and overtime are serious safety issues, and have concerns both about specific plant practices and about current NRC regulations. Thus we respectfully request that the NRC investigate the prevalence of licensee staff overtime and its safety significance. In particular, we would appreciate your assistance in answering the following questions:

1. What enforceable regulations are there on staff overtime and shift staffing at NRC licensees? Why is there no explicit, enforceable prohibition of excessive hours as there is for airline pilots and truck drivers?
2. What definitions or standards for "routine heavy use," "temporary basis," and "very unusual circumstances" does the NRC use in evaluating plants' overtime usage?
3. Are there any examples of errors in performing safety-related functions at U.S. nuclear plants in the past five years which NRC believes may be attributed in part to operator fatigue, staffing levels, or staff overtime?
4. For all nuclear plants in the U.S. over the past year, with what frequency did safety-related personnel a) work more than eight hours a day (while the plant was operating), b) work more than forty hours a week (while the plant was operating), c) work more than 16 hours in a 24 hour period, d) work more than 24 hours in a 48 hour period, e) work more than 72 hours in a 7 day period, or f) have a break between work periods of less than eight hours?
5. For items c) through f) of the previous question, how often did these deviations from NRC guidelines not receive required prior authorization or documentation? For authorized deviations, does the documentation demonstrate appropriate and sufficient reason for the deviations, and were the circumstances "very unusual"?
6. How have the staffing levels of safety-related personnel in these plants changed over the past year and past five years? Is there significant variation in the staffing levels at the plants that is not clearly due to differences between the plants?

Thank you for your assistance. If you have questions concerning this letter please feel free to contact Mr. Lowell Ungar or Mr. Jeffrey Duncan on the staff of Congressman Markey at (202)225-2836.

Sincerely,

Edward J. Markey
Member of Congress

cc

Samuel R. Berger, National Security Council
Louis J. Freeh, Federal Bureau of Investigation